

5'	TCT	TTC	ATA	GAG	ACT	AAA	GTT	ATT	CAG	CAG	GCA	GCA	AAA	TAA	TCT	ACT	TAA	GTC
	9		18		27		36		45		54							
	63		72		81		90		99		108							
	CTG	CCT	TTC	TTT	TTC	TTA	AAA	AAG	TGG	GTG	TGA	TAA	TAT	CCA	GGC	TAG	CTA	
	117		126		135		144		153		162							
	GCT	GAC	TAG	CTC	CCC	GGG	CAG	TCT	ATG	ATA	ATC	AGA	GAT	AGT	CAA	TTT	ATT	AGG
	171		180		189		198		207		216							
	CTG	TTT	TGC	TGA	ATG	AGC	TGG	TTC	TAA	AGG	CAG	GGG	TCA	AGT	CAC	TTG	TCT	
	225		234		243		252		261		270							
	CAT	ATA	TTA	CAG	TGG	CTC	TCT	GCA	TCC	CCG	AAA	CGC	CTT	CCT	TCA	GTA	AGC	AGA
	279		288		297		306		315		324							
	GTG	CTT	GAG	TGC	ACC	CCA	TTT	GAC	CTG	CTG	ATA	TGT	AGA	TCA	CAA	CNC	CTG	ATG
	333		342		351		360		369		378							
	CTT	CCT	GGA	ATT	GCC	GAT	TAC	TGT	AAC	TGC	TGC	CCA	TCT	GTC	GAT	GAA	GGA	GCA
	387		396		405		414		423		432							
	GTT	TCA	GAA	CTC	AGA	CTT	GAG	GGA	GGA	AAA	GTA	ATT	AAT	GGT	GCC	CGG	CGT	TCC
	441		450		459		468		477		486							
	TCC	CTT	CCC	CCT	CGC	CGC	CGA	CCG	AGT	TCT	TCC	TTT	TCA	GAC	CGG	GTC	GCC	TTG

FIGURE 1A

495	CTG	TCG	TCG	CGG	TGA	TTT	TCC	TGC	TAC	TGC	TGC	TGC	TGC	TGC	CGC	CAC	540
549	TAC	CAC	TGG	GCT	CAT	TTG	CCC	CGA	CCC	CTT	CCC	GCC	GCC	CCG	CCC	CCA	594
603	CAC	AAG	ATG	TCA	GAG	GAT	TTA	GCA	AAG	CAG	CTG	GCA	AGC	TAC	AAA	GCT	648
	M	S	E	D	L	A	K	Q	L	A	S	Y	K	A	Q	L	
657	CAG	CAA	GTT	GAA	GCT	GCA	TTA	TCT	GGA	AAT	GGA	GAA	AAT	GAA	GAT	TTG	702
	Q	V	E	A	A	L	S	G	N	G	E	N	E	D	L	L	
711	TTG	AAG	AAA	GAT	TTA	CAA	GAA	GTT	ATA	GAA	CTA	ACC	AAA	GAC	CTT	CTG	756
	L	K	K	D	L	Q	E	V	I	E	L	T	K	D	L	L	
765	CAA	CCT	TCT	GAG	ACG	CTT	GCA	AGT	TCA	GAC	AGT	TTT	GCT	TCT	ACT	CAA	810
	Q	P	S	E	T	L	A	S	S	D	S	F	A	S	T	Q	
819	CAT	TCA	TGG	AAA	GTA	GGA	GAC	AAG	TGT	ATG	GCA	GTC	TGG	AGT	GAA	GAT	864
	H	S	W	K	V	G	D	K	C	M	A	V	W	S	E	D	

FIGURE 1B

873	882	891	900	909	918
TGT TAT GAA GCG GAG ATT GAG GAG ATA GAT GAA GAA AAT GGC ACC GCT GCA ATC					
C Y A E I E E I D E E N G T A A I					
27	36	45	54	63	72
ACC TTT GCT GGT TAT GGC AAT GCT GAA GTG ACT CCA CTG TTG AAC CTC AAG CCT					
T F A G Y G N A E V T P L L N L K P					
81	90	99	108	117	126
GTA GAA GAA GGA AGG AAG GCA AAG GAG GAC AGT GGC AAC AAA CCC ATG TCA AAA					
V E E G R K A K E D S G N K P M S K					
1035	1044	1053	1062	1071	1080
AAA GAA ATG ATT GCC CAG CAG CGT GAA TAT AAA AAG AAG AAA GCT TTG AAA AAA					
K E M I A Q Q R E Y K K K A L K K					
1089	1098	1107	1116	1125	1134
GCT CAG AGA ATA AAA GAA CTT GAG CAG GAA AGA GAG GAC CAG AAA GTG AAA TGG					
A Q R I K E L E Q E R E D Q K V K W					
1143	1152	1161	1170	1179	1188
CAA CAA TTC AAC AAC AGA GCC TAT TCT AAA AAC AAA AAA GGC CAG GTA AAG AGG					
Q Q F N N R A Y S K N K K G Q V K R					
1197	1206	1215	1224	1233	1242
AGT ATT TTT GCT TCA CCT GAG AGT GTG ACT GGT AAA GTT GGA GTA GGA ACC TGT					
S I F A S P E S V T G K V G V G T C					

FIGURE 1C

1251	1260	1269	1278	1287	1296
GGA ATT GCT	GAT AAA CCT	ATG ACA CAA	TAT CAA GAT	ACC TCT AAA	TAC AAT GTC
G I A D	K P M T	Q Y Q D	T S K Y	N V	
1305	1314	1323	1332	1341	1350
AGG CAT TTG	ATG CCT CAA	TAA TCA GAA	AAA CTG TTG	GAT TTC ATC	TCT GCA GGG
R H L M	P P Q				
1359	1368	1377	1386	1395	1404
CTT TAC ATT	TAC CTT TTT	ATC CTT ATA	TTT TTC TAA	AGG TAA ATT	ATT TGT TAG
1413	1422	1431	1440	1449	1458
ATG AGT AAG	CAA GAT ACC	ATT GTC GTC	ATT GGT TGG	CTT CAG TAG	AAT GAA ACG
1467	1476	1485	1494	1503	1512
TGA AGA AAT	TGC ATT TGA	TAA TGA CTG	CTA TTC ATT	TAA CTT TTC	TCA TTA TCA GTA
1521	1530	1539	1548	1557	1566
CCA CGG TTC	CCT CAA AGT	TTG TTG AAT	AAA GCA ACT	TTT GTA GAT	GCT GTT TCA
1575	1584	1593	1602	1611	1620
TAC AGC ACT	TAG ATG AAT	TAT TGA TCT	TCC TAA TAT	CAG GCG CCT	ACT TAA CCT
1629	1638	1647	1656	1665	1674
ATG GTG TGT	ACT TTT TGT	AAG TTG TAA	CTT GAA ATT	TTC AGA TGC	TTT GAA CTT

FIGURE 1D

1683	1692	1701	1710	1719	1728
GAC ACA TAC TCT AGC AAT TCA TTG GAA CAC CAA GGC AAA AAC ACC AAC CTG CTA					
1737	1746	1755	1764	1773	1782
AAA GAG ATC TTT TCA TTT TTC TTA TTT TCA GCT TTA AAA CTT AGC TGT CGT TCA					
1791	1800	1809	1818	1827	1836
GTT AAG CTT AAA GAT AGG TTA ATT TGT AAA TGG CAA AGT TTG TTT TGA GGT TTT					
1845	1854	1863	1872	1881	1890
TCC TCA ATA ACT TGT TTC CCA GGC CTA TTA GGC CAT CTC TAA AAT TGA TCT AGC					
1899	1908	1917	1926	1935	1944
TGT TTT ATT TTT ATG TAC TCT TAG TTT TAT GTA AGA AAC CTT AGG ATG AGC TCC					
1953	1962	1971	1980	1989	1998
CTT TTC TAA GGT GTT TTT GTT TTT ATG ATG TTT GCT TTT TTC CTG TTT TTT GTT					
2007	2016	2025	2034	2043	2052
TTT TCC ATT TAC GGC AGT GGT ACC ATG TTT TGG ATG TGT GAT GTT TAT ATG GGA					
2061	2070	2079	2088	2097	2106
GAA CAA AAA GCT GAT GTA TAG CCC TGT ATA CAG TGT AGA TAC TAT TTT TGT AAA					
2115	2124	2133	2142	2151	2160
AAC ACA AGG CTA AAT TAA TGA ACA AGA ATA CTG AAT ATT TCA TCA TTA AAA ATT					

FIGURE 1E

2169 2178 2187 2196 2205 2214  
TCT TGT ATT TCT TGT GCA TTA ATC TGA CGA TAA TTT CCC TGT ATA TTA TGT TCA

2223 2232 2241 2250 2259 2268  
TTT AGC TGT TTG TAA TTT TTG TTA ATT AGA TCA GGT TGT CTG CAT TTG TTG GTG

2277 2286 2295 2304 2313 2322  
TAA GTG AAC ATC ATC ACA GTT ATC CTG AGT TGA GTT TAA GCC AAA TAC ATG CAT

2331 2340 2349 2358 2367 2376  
AGA AAA GGG TCT TCC TAT TAA TGG AAG AAG GTA ATT TTT AGG ATG TGT ATT ATT

2385 2394 2403 2412 2421  
TCA GTT TTG TAT GTT TAA CTT TTA TTA AAT AAA GTG TTT TTA AAA TCT CC 3'

FIGURE 1F

1	M	S	E	D	L	A	K	Q	L	A	S	Y	K	A	Q	L	Q	Q	V	-	-	-	-	E	A	A	L	S	G	N	3769729
1	M	A	M	G	S	G	G	A	G	S	-	-	-	E	Q	E	D	T	V	L	F	R	R	G	T	G	Q	S	D	D	GI 1857114
1	M	A	M	S	G	S	G	G	V	P	E	Q	E	D	S	V	L	F	R	R	G	T	G	Q	S	D	D	GI 1314346			
27	G	E	N	E	D	L	L	K	L	K	K	D	L	Q	E	V	I	E	-	L	T	K	D	L	L	S	T	Q	P	S	3769729
28	S	D	I	W	D	D	T	A	L	I	K	A	Y	D	K	A	V	A	S	F	K	H	A	L	K	N	G	D	I	C	GI 1857114
31	S	D	I	W	D	D	T	A	L	I	K	A	Y	D	K	A	V	A	S	F	K	H	A	L	K	N	G	D	I	C	GI 1314346
56	E	T	L	A	S	S	D	S	F	A	S	T	Q	P	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	H	3769729
58	E	T	P	D	K	P	K	G	T	A	R	R	K	P	A	K	K	N	K	S	Q	K	N	A	T	P	L	K	GI 1857114		
61	E	T	S	G	K	P	K	T	T	P	K	R	K	P	A	K	K	N	K	S	Q	K	N	T	A	A	S	L	Q	GI 1314346	
72	S	W	K	V	G	D	K	C	M	A	V	W	S	E	D	G	Q	C	Y	E	A	E	I	E	E	I	D	E	E	N	3769729
88	Q	W	K	V	G	D	K	C	S	A	V	W	S	E	D	G	C	I	Y	P	A	T	I	T	S	I	D	F	K	R	GI 1857114
91	Q	W	K	V	G	D	K	C	S	A	I	W	S	E	D	G	C	I	Y	P	A	T	I	A	S	I	D	F	K	R	GI 1314346
102	G	T	A	A	I	T	F	A	G	Y	G	N	A	E	V	T	P	L	L	N	L	-	K	P	V	E	E	G	R	K	3769729
118	E	T	C	V	V	V	Y	T	G	Y	G	N	R	E	E	Q	N	L	S	D	L	L	S	P	T	C	E	V	A	N	GI 1857114
121	E	T	C	V	V	V	Y	T	G	Y	G	N	R	E	E	Q	N	L	S	D	L	L	S	P	I	C	E	V	A	N	GI 1314346
131	A	K	E	D	S	G	N	K	P	M	S	K	K	E	M	I	A	Q	Q	R	E	Y	K	K	K	K	A	L	K	K	3769729
148	S	T	E	Q	N	T	Q	E	N	E	-	-	S	Q	V	S	T	D	D	S	E	-	H	S	S	R	S	L	R	S	GI 1857114
151	N	I	E	Q	N	A	Q	E	N	E	N	E	S	Q	V	S	T	D	E	S	E	-	N	S	R	S	P	G	N	K	GI 1314346

FIGURE 2A

161	A	Q	R	I	K	E	L	E	Q	E	R	E	D	Q	K	V	K	W	Q	Q	F	-	-	N	N	R	A	Y	S	K	3769729	
175	K	A	H	S	K	S	-	-	-	-	-	-	-	K	A	A	P	W	T	S	F	L	P	P	P	P	P	M	P	G	GI 1857114	
180	S	D	N	I	K	P	-	-	-	-	-	-	-	K	S	A	P	W	N	S	F	L	P	P	P	P	P	M	P	G	GI 1314346	
189	N	K	K	G	Q	V	K	R	S	I	-	F	A	S	P	E	S	V	T	G	-	-	-	-	-	-	-	-	-	-	3769729	
198	S	G	L	G	P	G	K	P	G	L	K	F	N	G	P	P	P	P	P	L	P	P	P	P	P	F	L	P	C	W	GI 1857114	
203	P	R	L	G	P	G	K	P	G	L	K	F	N	G	P	P	P	P	P	P	P	P	P	P	P	H	L	L	S	C	W	GI 1314346
208	-	-	-	K	V	G	V	G	T	C	G	I	A	D	K	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3769729
228	M	P	P	F	P	S	G	P	P	I	I	P	P	P	P	P	I	S	P	D	C	L	D	D	T	D	A	L	G	S	GI 1857114	
233	L	P	P	F	P	S	G	P	P	I	I	P	P	P	P	P	P	I	C	P	D	S	L	D	D	A	D	A	L	G	S	GI 1314346
221	-	-	-	-	-	-	-	-	-	-	-	M	T	Q	Y	Q	D	T	S	K	Y	N	V	R	H	L	M	P	Q	3769729		
258	M	L	I	S	W	Y	M	S	G	Y	H	T	G	Y	Y	M	G	F	R	Q	N	K	K	E	G	K	C	S	H	T	GI 1857114	
263	M	L	I	S	W	Y	M	S	G	Y	H	T	G	Y	Y	M	G	F	R	Q	N	Q	K	E	G	R	C	S	H	S	GI 1314346	
238	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3769729	
288	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	GI 1857114	
293	L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	GI 1314346	

FIGURE 2B